

Scientific Farming

USEFUL WEIGHTS

The following weights may not be exact, but they are near enough for ordinary calculations:

One cubic foot of water, 62.4 pounds.

A volume of air equal to 12.4 cubic feet weighs 1 pound.

One barrel contains 31½ gallons.

One cubic foot of water contains 7.48 gallons.

One gallon of water weighs about 8.33 pounds.

One pint of water weighs about 1 pound.

Pine weighs about 35 pounds per cubic foot.

Oak weighs about 45 pounds per cubic foot.

Concrete weighs about 150 pounds per cubic foot.

Stone weighs from 135 to 200 pounds per cubic foot.

Seventeen cubic feet of clay weighs about a ton.

Eighteen cubic feet of gravel in bank weighs about a ton.

Twenty-seven cubic feet of gravel, dry, weighs about a ton.

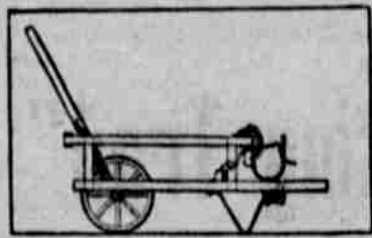
Lime weighs 75 pounds per bushel.

USEFUL AS FODDER BUNDLER

Device invented by Ohio Man for Receiving Stalks of Corn and Holding in Compact Form.

The Scientific American in illustrating and describing a device adapted for receiving stalks of corn, invented by J. L. Wolfe of Willshire, Ohio, says:

This device is adapted for receiving stalks of corn and for holding them in a compact form in such manner that



Fodder Bundler.

a tie may be placed on the bundle while so held, and wherein the bundler is well supported for easy transportation, and wherein means is provided on the bundler for supporting cord and for permitting the cord to be drawn off to be used as ties for the bundles, and for compressing the bundle prior to the tying.

FEED SWINE CULL POTATOES

Spuds Are Poor in Protein, But Rich in Carbohydrates, Thus They Are Fat Producing.

(From the United States Department of Agriculture.)

It is estimated that four and one-half bushels of potatoes equal one bushel of corn in producing weight gains on hogs. Potatoes resemble corn in composition, and this is especially true of sweet potatoes. Both corn and potatoes are poor in protein and rich in carbohydrates, thus they make fat rather than bone and muscle. The potatoes should be boiled or steamed until they form a mealy mash, which should be mixed with some other feed such as corn-meal, shorts or bran. Only enough water should be added in the cooking to prevent burning and to make a thick mash. While some potatoes may be fed raw to add succulence to the ration, they should be given only at intervals and in small quantities. Too many are likely to cause scours. A potato ration should be supplemented with feeds rich in nitrogen, such as old-process linseed-oil meal or fish meal. Where sweet potatoes are plentiful and cheap a combination with gluten meal and skim milk makes a good ration.

SCARE SHEEP-KILLING DOG

Dummy of Man Holding Stick or Gun Will Frighten Cows Away—Keep Moving It About.

A Minnesota farmer writes that he keeps dogs away from his flock by putting up in his pasture the dummy of a man holding a stick or a gun. This dummy is taken down every morning and put up again in the evening, at different places, from night to night. He says a sheep-killing dog will not go near enough to the dummy to discover that he is a bogus man.

DIFFERENT TYPES OF PLOWS

Before Purchasing Farmer Should Consider Construction of Harrows and Packers.

Different types of land require particular kinds of plows, and there is a difference in the construction and quality of harrows and packers which every farmer should consider before purchasing a supply of these tools.

CORN LACKING IN MINERALS

When Fed as Sole Concentrate in Rations for Swine Bodily Weakness Will Result.

Because of its low content of mineral matter, particularly lime, corn should not be fed as the sole concentrate in rations for swine. Bodily weaknesses result from a deficiency of mineral elements when other feeds are not supplied with corn.

In experimental feeding tests conducted by Dr. E. B. Forbes of the Ohio experiment station, hogs fed mainly corn had weak bones often resulting in lameness and fractures. Such injuries do not occur with hogs on pasture or with those given feed rich in lime, such as clover, alfalfa, rape, skim milk and tankage. Bone flour, wood ashes, corn-cob charcoal and lime are useful supplements to rations deficient in minerals.

RIGHT CARE OF SPRAY PUMP

Different Parts Should Be Gone Over, Cleaned and Oiled—Keep Machinery Under Cover.

Are you taking care of your spray pump? Go over all the different parts of the pump, cleaning them off and oiling them. Unless this precaution is taken your pump will be out of order when you will need it. The spray materials rust the metal parts and they soon become useless unless they are cleaned and oiled when the season is over. Don't fail to keep the pump and all other machinery under shelter when not in use.

BEST IMPROVEMENT OF SOIL

Much Easier to Maintain Productivity of Land Than to Rebuild Soil Robbed of Fertility.

If the soil is neglected in any respect in the development of our system of farming, our agricultural structure will become top-heavy. Soil improvement is the foundation upon which our structure of permanent agriculture is based. It is much easier to maintain the productivity of the land than it is to rebuild a soil robbed of its fertility.

TIMOTHY HAY IS VALUABLE

Palatability Is One of Chief Reasons Why It Is Standard in Most of Our Markets.

Timothy hay is a palatable hay and this is one of the chief reasons why it is standard in most markets. In addition to this, a horse can be fed a large quantity of it and will suffer no ill effects when given a hard drive immediately after having eaten the hay. Palatability depends largely on the time the hay is cut and on the method of curing.

USEFUL FOR WINTER MULCH

Leaves Are Not Only Serviceable When Placed About Plants, But Also Good for Litter.

Save the leaves. They are useful for winter mulch about garden plants, for poultry to scratch in and, when piled and rotted down, make a good fertilizer for the garden. It is worth while to save them if possible.

PUT FARM IMPLEMENTS IN REPAIR IN WINTER

When housing the farm implements for winter make a list of repairs needed to put them in shape for efficient service next year. Order these repairs at once and have them on hand when needed. Such precaution may easily save days of delay next spring. Materials are so short that manufacturers will not carry more parts than seems absolutely necessary. An order placed now means that you will not be disappointed next spring.

SKIM MILK OF GREAT VALUE

Value of Product as Hog Feed Generally Known, But Not Always Fully Appreciated.

The value of skim milk as a hog feed is known on every farm, though not always fully appreciated. In the neighborhood of many large dairies pork production is a very prominent and lucrative supplement to the dairy industry.

Social Vaudeville.

"I'd dearly love to get into society, but I don't know how to make conversation."

"Conversation? What you want is a good monologue."

RETURNED AMERICAN DESCRIBES GERMANY

Portland, Jan. 14.—Conditions in Germany are desperate, food is scarce and "wucherling" (profiteering) is practiced by dealers in what supplies are available. Butter is \$5 a pound, lard and other fats, \$3 a pound, meat \$5 a pound, sugar \$1 a pound and flour (the coarsest graham mixture) \$1 a pound. To produce a loaf of wheat bread costs \$3; but even under these conditions the people still cling to the belief that victory will be theirs.

These and other details are related in a letter and newspaper clippings received by Frank E. Lewis, of this city, a brother-in-law of ex-Mayor Albee, from Dr. Wilhelm Law, college friend of Mr. Lewis, who reached New York New Year's day from Berlin, where he had practiced dentistry for 13 years. He was too ill to come over with the Gerard party, but brought his wife and daughter to Flint, Mich., their old home, as soon as he was physically able. Dr. Law is a graduate of the University of Michigan. While in Berlin he had a clientele among the nobility and was in a position to learn much of interest.

One of the most interesting features of his information is the fact that, just prior to the declaration of war on Germany by the United States, it was common talk in Berlin in the circle in which Dr. Law moved that America would be the next for attack when the allies were whipped. The Germans, he says, felt that they had the war about won at that time.

SEVEN-NAMED HERO

Lafayette Only Nineteen When He Came to America.

Congress Commissioned Him Major General and Washington Invited Him Into His Military Family.

Marie Jean Paul Roche Yves Gilbert Motier was born September 6, 1757. You know this seven-named hero better by his title than by any of his septet names; he was the Marquis de Lafayette.

While the birthday of Lafayette has not been generally celebrated in the United States, no 6th of September has been permitted to pass without some recognition of Lafayette's services.

At the age of thirteen he inherited an immense fortune, and he was only sixteen when he married the granddaughter of the Duke de Noailles. Despite his aristocratic education and environment, he was from childhood an ardent lover of liberty.

"Republican anecdotes always delighted me," he wrote in his memoirs, "and when my new connections wished to obtain for me a place at court I did not hesitate displacing them to preserve my independence."

When he first heard of the Revolution in America he "espoused warmly the cause of liberty" and offered his services to Silas Deane, the American revolutionary agent in France.

"When I presented to Mr. Deane my boyish face, for I was scarcely nineteen years of age, I spoke more of my ardor in the cause than of my experience," wrote Lafayette, "but I dwelt upon the effect my departure would cause in France."

The credit of the Continental congress was so low that Deane could not procure a vessel, so Lafayette bought and secretly freighted the ship Victory to carry himself and a dozen or so other officers across the Atlantic. Among Lafayette's companions was Baron Johann de Kalb, a native of Bavaria, who had long been in the service of France. Against the wishes of his relatives and the orders of the French king Lafayette sailed for America. From the Victory he sent a message to his girl-wife:

"From love to me become a good American; the welfare of America is closely bound up with the welfare of mankind."

Lafayette and his party landed near Georgetown, S. C., in April, 1777, and then traveled by land to Philadelphia, where the congress commissioned the nineteen-year-old boy a major general, and Washington invited him to become a member of his military family.

The boy general joined the Continental army in August, 1777, and in the following month he fought at Brandywine, where the Stars and Stripes were first carried into battle. Lafayette fought as a volunteer, and was badly wounded. After several brilliant exploits he returned to France in 1779 and was hailed as a hero.

During the French revolution he was an ardent republican and dropped his title when he was made commander in chief of the National Guards. He was driven from his country by the extremists, and the Austrians flung him into a dungeon, where he was confined for five years.

LESLIE SALT

supplies the tastiness which coaxes the best flavor out of your cooking

THE FLAG GOES BY.

Hats off! Along the street there comes A blare of bugles, a ruffle of drums, A flash of color beneath the sky. Hats off! The flag is passing by.

Blue and crimson and white it shines Over the steel-tipped ordered lines. Hats off! The colors before us fly; But more than the flag is passing by.

Sign of a nation great and strong To ward her people from foreign wrong. Pride and glory and honor, all Live in the colors to stand or fall.

Hats off! Along the street there comes A blare of bugles, a ruffle of drums, And loyal hearts are beating high. Hats off! The flag is passing by.

—Henry H. Bennett.

Cards at the Courier office.

STUMEZE

THE MASTER PRESCRIPTION FOR STOMACH ILLS

If you suffer from indigestion, dyspepsia, catarrh of the stomach, pain after eating, sour, gassy, belching or too strongly acid stomach, bad breath or bloating, go to your druggist and get a bottle of STUMEZE. This reliable, reconstructive, digestive tonic offers you relief from the ills that beset you.

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O. & C. GRANT LANDS—Blue print plats showing lands in Josephine county, \$1.50. Address A. E. Voorhies, Grants Pass.

DEALERS in horses, mules, cattle, wagons, hacks, buggies, harness and saddles. We have a variety of all kinds at all times. If you have anything to sell or exchange, or if you want to buy, come and see us. We will treat you right. All our livestock is put out under guarantee. Red Front Feed and Sale Stable, Corner Sixth and K streets. Timmons, Prop. Phone 533-J.

FOR SALE—Good modern house, close in, north side. Inquire No. 2333, care Courier.

FOR SALE—A good general purpose horse and a fresh Jersey cow, 6 per cent test, 50 laying pullets and a few hens for breeding. Rhode Island Reds. Phone Provolt Central. W. G. White.

HAY FOR SALE—Loose or baled. Inquire H. E. Gordon, Phone 610-F-34.

FOR SALE—Medium sized steel range in good condition. Price \$25. Inquire A. G. Houck, South Park street.

TYPEWRITERS for sale—Smith Premier at \$15; Remington at \$10. Courier office.

HAVE A HOME of your own. Your choice of three residences, good locations, \$10 monthly payments. Prices \$700 to \$950. G. O. Oium.

WILL SELL 4-cylinder Maxwell roadster for \$150 cash. Write or see me personally if interested. G. O. Oium.

FOR SALE—27½ acres on Applegate. 15 acres bottom land with plenty of water for irrigation, 12½ acres bench land, 4-room house and out buildings. Farming tools. Team young mares, wagon and harness, 2 cows, 50 chickens. Price \$1,500. Part terms. O. E. Harper, R. F. D. No. 1, Murphy. Phone Provolt.

FOR SALE—One Ford, good condition, \$260; one Excelsior, \$115; one Flying Merkel, \$30; one Pope \$25; bicycles, \$7 to \$20. Paramount Cyclery, 506 South Sixth street.

FOR SALE—One acre black, cultivated soil, 10th and M streets. Price \$350, on terms. L. A. Launer, realtor.

SNAP—Four-room house, K street, barn, two lots. Price \$325. L. A. Launer, realtor.

SNAP—23 acres bottom, close in, on river, 14 acres cultivated, sandy loam. Prime \$2,300. L. A. Launer, realtor.

OLD SHELVING and counters for sale at a bargain. M. Clemens, the Rexall store.

TO RENT

TREMONT ROOMS—Now under management of Mrs. L. C. Armstrong; 28 clean rooms at 25c and 50c; special rates by week or month; also light housekeeping rooms. Would like your patronage.

FURNISHED ROOMS—Large, comfortable and conveniently located, 411 C street.

HOTEL OXFORD ROOMS for rent—Large, well furnished, steam heat, hot water, bath, and all hotel privileges. Very moderate weekly and monthly rates.

FOR RENT—5-room house, 811 South Eighth street. Inquire of owner, Chas. Morrison, 622 L St.

FOR RENT OR SALE—Irrigated farm—plenty of water during the whole season. Inquire Jo. Fetzer, 755 North Eighth street.

RENTAL—50 acres cultivated, buildings, 15 acres sandy loam bottom, balance level on bench, on river, three miles out. Cash rent \$90. L. A. Launer, realtor.

LOST

WILL THE PARTY who took the Fresno scraper from 902 I street return the same to Wm. Lister at once. J. W. Shook.

WANTED

WANTED—100 cords of wood on the stump. Address 321 West Burgess street.

WANTED—To buy a second hand iron wheel wagon—four to six inch tires—holding about 3,000 lbs. C. Shaefer, R. F. D. No. 2.

PHYSICIANS

L. O. CLEMENT, M. D.—Practice limited to diseases of the eye, ear, nose and throat. Glasses fitted, nose and throat. Glasses fitted. Office hours 9-12, 2-5, or on appointment. Office phone, 62; residence phone 359-J.

S. LOUGHRIDGE, M. D.—Physician and surgeon. City or country calls attended day or night. Residence phone 763; office phone 183. Sixth and H. Tuffs Building.

A. A. WITHAM, M. D.—Physician and surgeon. Office: Hall Bldg., corner Sixth and I streets. Phone: Office, 115; residence, 285-J. Hours, 9 a. m. to 4 p. m.

DR. J. O. NIBLEY—Physician and surgeon. Lundburg Building. Surgeon Utah-Idaho Sugar Co. Health Officer. Office hours, 9 to 12 a. m. 1 to 5 p. m. Phone 310-J.

DENTISTS

E. C. MACY, D. M. D.—First-class dentistry. 109½ South Sixth street, Grants Pass, Oregon.

ATTORNEYS

H. D. Norton, Attorney-at-law. Practice in all State and Federal Courts. First National Bank Bldg.

COLVIG & WILLIAMS, Attorneys-at-law Grants Pass Banking Co. Bldg. Grants Pass, Oregon.

E. S. VAN DYKE, Attorney, Practice in all courts. First National Bank Building.

DURHAM & RICHARD, Attorneys-at-law. Office Masonic Temple, Grants Pass Oregon.

W. T. MILLER, Attorney-at-law County attorney for Josephine County. Office: Schallhorn Bldg.

O. S. BLANCHARD, Attorney-at-law Golden Rule Building. Phone 270. Grants Pass, Oregon.

BLANCHARD & BLANCHARD, Attorneys, Albert block. Phone 236-J. Practice in all courts; land board attorneys.

VETERINARY SURGEON

DR. R. J. BESTUL, Veterinarian. Office in Wintrust Implement Bldg. Phone 113-J. Residence Phone 305-R.

DRAYAGE AND TRANSFER

COMMERCIAL TRANSFER CO. All kinds of drayage and transfer work carefully and promptly done. Phone 181-J. Stand at freight depot. A. Shade, Prop.

F. G. ISHAM, drayage and transfer. Sales, pianos and furniture moved packed, shipped and stored. Phone Clark and Holman, No. 50. Residence phone 124-R.

THE WORLD MOVES; so do we. Bunch Bros. Transfer Co. Phone 397-R.

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J. S. MACMURRAY, teacher of voice culture and singing. Lessons given at home of pupil if requested. Address 716 Lee St.

PHOTO STUDIO

THE PICTURE MILL, open daily 10 a. m. to 5 p. m. For Sunday sittings call Mill 283-R or residence 140-J.

MISCELLANEOUS

BENNETT'S CHEMICAL Laboratory, 1143 Market street, Tacoma, Wa. Let us take care of your ore shipments and do your control work, rates reasonable.

The California and Oregon Coast Railroad Company

TIME CARD

Effective December 1, 1917.

Tuesday, Thursday, Saturday

Train 1 lv. Grants Pass. 1:00 p. m.

Train 2 lv. Waters Creek 3:00 p. m.

All trains leave Grants Pass from the corner of G and Eighth streets, opposite the Southern Pacific depot.

For all information regarding freight and passenger service call at the office of the company, Lundburg building, or phone 131 for same.

Faithful Dog.

A dog's faith in its master has been touchingly illustrated at Riom, France, recently. The man has gone to the war, and has been killed, but the dog still awaits his return, and he refuses to leave the station at Riom. Upon the arrival of each train he dashes out on to the platform, runs first to the locomotive and then scampers from carriage to carriage, looking for the object of his affection—until the whistle blows and he is left to gaze wistfully, as he did once in 1914.